

SYSTEM AND METHOD FOR  
AUTOMATICALLY RETARGETING TEST  
VECTORS BETWEEN DIFFERENT TESTER TYPES

ABSTRACT OF THE DISCLOSURE

5        A system and a method for automatically retargeting test vectors for application on tester systems having different performance capabilities. The system includes a user selectable mode selector that can be adjustable between different performance modes, e.g., high, medium and low, in one instance. In high performance mode, the system allows test vectors to be applied using a high  
10      performance test system, e.g., a tester having high pin count. In low performance mode, the same test vectors can be applied but using a low performance test system, e.g., a tester having low pin count. By allowing the same test vectors to be used in a high performance or a low performance testing environment, a testing facility can make maximum use of its available testing equipment for efficiently  
15      testing a device. The test vectors used, in one embodiment, are developed for a high performance test system. The novel system alters the communication protocol used to deliver the test vectors, and the functional inputs, depending on the performance mode selected but the test data itself does not change. The novel system includes on-chip circuitry that can automatically reconfigure the size and  
20      number of scan chains within the integrated circuit, depending on the performance mode selected. Other techniques are used for reducing the numbers of pins required to perform a testing sequence, while still being able to use test vectors designed for high performance (e.g., high pin count) test systems.